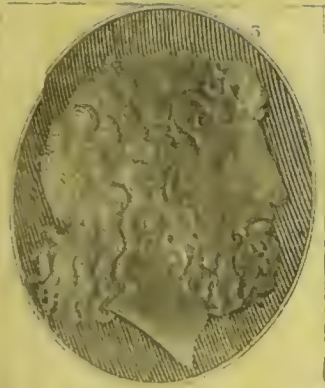
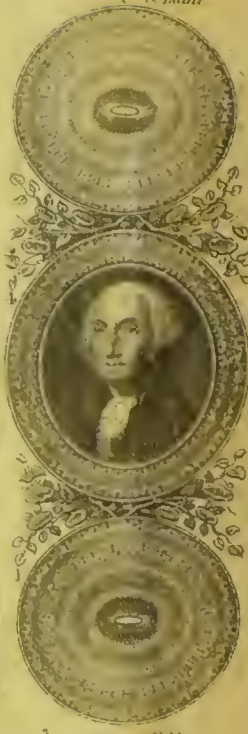
FOOTE'S
BANK NOTE
DETECTOR
AT SIGHT.

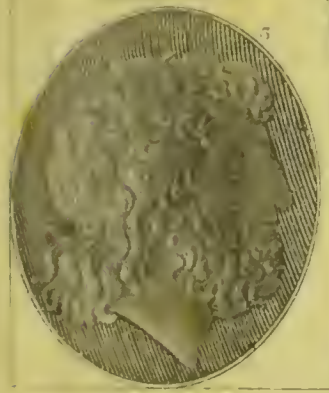




Universal COUNTERFEIT Detector

Applicable to all **Banks** in the

UNITED STATES



THE UNIVERSAL COUNTERFEIT

AND

ALTERED BANK NOTE DETECTOR,

AT SIGHT:

A System of Infallible Detection at Sight, Applicable to all Banks in the United States, now in circulation, or hereafter issued.

COMPLETE IN SEVEN RULES:

WITH

Diagrams and Illustrations on Steel,

FOR SELF-INSTRUCTION.

ARRANGED AND IMPROVED BY H. C. FOOTE,
71 BROADWAY, NEW YORK.

FOURTH EDITION.—FIFTH THOUSAND.

NEW YORK:
MANN & SPEAR, PRINTERS AND STATIONERS,
133 Pearl Street.
1853.

Entered according to Act of Congress, in the year 1848, by

WHEELER M. GILLETT,

in the Clerk's Office of the District Court of the United States, for the District of Ohio.

TESTIMONIALS.

New York, Sept. 18th, 1849.—I have examined Mr. Foote's method of detecting counterfeit Bank Notes, and have no hesitation in saying, that in my opinion it will be exceedingly serviceable to any who will give it their attention.

F. W. EDMONDS, Cashier Mechanics' Bank, N.Y.

I concur in the above. E. H. ARTHUR,
Ass't Cashier Union Bank, N.Y.

Mr. H. C. Foote's method of detecting counterfeit and altered notes is founded on true principles, and well worthy the consideration of all money-takers. J. McCHESNEY,
Of Adams, McChesney & Co., Exchange Brokers, 71 Wall st., N.Y.

CHAS. COLGATE & CO., Exchange Brokers, 67 Wall street.
C. S. SLOANE, Exchange Broker, 23 Wall street.
ANTHONY LANE, Exchange Broker, 49 Wall street.

Troy, Nov. 23d, 1849.—Two months since I attended Mr. Foote's instructions in detecting counterfeit Bank Notes, and am very willing now to say that I am well satisfied with his system and mode of explaining it. C. P. HARTT, Teller Troy City Bank.

New York, Nov. 28th, 1849.—I fully concur in the opinion respecting Mr. Foote's mode of detecting Counterfeit Bills as expressed above.
J. SIMPSON, Book-keeper, 72 William street.

City Hall, New York, Nov 29th, 1849.—I fully concur with Mr. Simpson in the above opinion. GEO. W. MATSELL,
Chief of Police.

Lansingburgh, N Y., Nov. 23d, 1849.—I fully agree with the preceding opinions on the subject of H. C. Foote's Detector.
A. WALSH, Jr., Teller Bank of Lansingburgh.

New York, Dec. 22d, 1849.—I concur in the above statements.
AMASA Z. FOSTER, Exchange Broker, 234 Pearl street.

New York, Dec. 26th, 1849.—I have examined Mr. H. C. Foote's system for detecting counterfeit Bank paper and think it useful, especially in well-executed counterfeits where judgment must depend upon the engraving alone. W. R. VERMILYE at sig
Of Carpenter & Vermilye, Exchange Brokers, 54 Wall is Mr.

New York, Nov. 17th, 1849.—Having taken lessons in counterfeit Bank Note Detection, as given by Mr. H. C. Foote, I hesitate not to say that I am fully satisfied that if strictly followed and practised upon, any man may detect the most ingenious counterfeit. It has the advantage of being reduced to system, and the information imparted respecting genuine engraving is worth double the cost of lesson.

A. LEWIS,
Cashier at Loder & Co.'s Wholesale Dry Goods, 83 Cedar street.

New York, Nov. 20th, 1849.—I have examined into Mr. Foote's system of counterfeit detection, and am satisfied it is useful and of great advantage to all dealing in Bank Notes.

WILSON DEFENDORF, Exchange Broker, 82 Wall street.
SMITH & HAWS, Exchange Brokers, 137 Chatham street.

New York, Jan. 8th, 1850.—Having been instructed by Mr. H. C. Foote in his method of detecting counterfeit Bank Bills, I can say with confidence that his system is perfect.

CHAS. W. HUBBELL, Cashier with Lee & Brewster,
Print Warehouse, 44 Cedar street.

New York, Dec. 5th, 1849.—Having availed myself of the instruction imparted in counterfeit detection as taught by Mr. H. C. Foote, I have no hesitation in saying that I am fully satisfied that it can by strict attention to the rules be made an infallible means of detecting all kinds of spurious Bills.

A. CARPENTER, Domestic Goods, 52 Cedar street.

New York. Feb. 19th, 1850.—I take pleasure in stating that the instruction I have received from Mr. Foote is of great service to me in detecting counterfeit and altered Bills.

CHAS. F. GOODHUE, Cashier at D. & D. H. Brooks,
Clothing Warehouse, cor. Catharine and Cherry streets.

New York, Feb. 19th, 1850.—About the best three dollars I have spent was with Mr. Foote for his valuable lesson in detecting counterfeit money.

JOHN T. BROWN,
Of Andrew Brown & Son, Clothiers, 114 Cherry street.

New York, 16th Nov. 1849.—I have examined the system of Mr. Foote for detecting counterfeits, and am satisfied that it is infallible when all the rules are applied.

S. M. ALFORD,
Wholesale Hardware, 5 Platt street.

Also several hundred more testimonials from Bankers, Brokers, and Merchants in New York City, Troy, Buffalo, Detroit and Ohio.

Notices by the Press of the "Universal Counterfeit Detector."

"Counterfeit Bank-Note Detector at Sight."—We have seen a little pamphlet of 20 pages, by H. C. Foote, of 763 Greenwich-street, N. Y., with this title. It gives eight rules, with illustrative diagrams, by an acquaintance with which, any person may readily distinguish the engraving of a counterfeit bill from a genuine one—founded upon the principle that no counterfeiter, working with his hand, can possibly attain the beauty and accuracy of engraving by the perfect and costly machinery of professional engravers. The difference between the two is shown by the diagrams. The writer says he has never seen a counterfeit which a judgment by these rules would not condemn at sight. Well-informed dealers in Bank Notes usually act upon this principle, but Mr. Foote has here attempted to give rules and explanations to render it more clear and easily understood, and by which every man may judge for himself. Its price is $2. We think, with Mr. Edmonds, Cashier of the Mechanics' Bank, N. Y., that it will be "exceedingly serviceable to any one who will give it due attention." —*Newark Daily Advertiser.*

Counterfeit Detector.—Our readers will notice in another column the advertisement of H. C. Foote's Universal Counterfeit Detector. We have examined the system, and have no hesitation in stating that it will do more than all others now in use towards ridding the country of counterfeit notes. The instructions which accompany the magnifying glass will enable a person, with very little trouble, to determine between good and bad notes. We notice among those who have recommended the system, the names of F. W. Edmonds, Esq. Cashier of the Mechanics' Bank, N. Y.; E. H. Arthur, Esq. of the Union Bank; C. S. Sloane, Broker, Wall street, and many other prominent money dealers. From what we can learn, we should think it a subject of universal interest.—*Scientific American.*

☞ H. C. Foote has published a little book of 20 pages, called the Counterfeit Note Detector. It seems to us to contain much important information for the detection of counterfeit Paper-money.—*New York Express*, November 24.

To Detect Counterfeits.—We have been made acquainted with a very valuable method of detecting counterfeit Bank Notes at sight, which may be learned by any one in one hour. The author is Mr. H.

C. Foote, No. 763 Greenwich-street, N. Y.—*New York Sun*, November 6th, 1849.

"The Universal Counterfeit Detector."—Mr. H. C. Foote, of 763 Greenwich-street, has just published a pamphlet, entitled as above, small in size, but exceedingly useful; a familiarity with the contents of which will render every one fully competent to detect any counterfeit or altered Bank Note at sight. From an examination into the system we are convinced that the knowledge derived from the little work in question will be of essential interest to every tradesman, and we therefore commend it to their attention and consideration. By an advertisement in another column it will be perceived that Mr. Foote will give lessons in his system, to all who may desire it.—*New York Atlas*, February 3d, 1850.

Water Cure Institute, Saratoga Spa. Sept. 12th. 1849.—To whom it may concern:—The bearer, Henry C. Foote, is a young gentleman of unexceptionable moral character, of excellent business habits, of strict integrity, and is scrupulously honest. He professes nothing he is not competent to perform. The business he is now engaged in is, and must be, of great individual and public benefit, and a direct means of preventing men from attempting to prey upon the community by fraud. If all that handle money had the knowledge of detecting spurious Bank Notes at sight, the trade would become extinct. Mr. Foote can impart this knowledge in one hour to any person of ordinary observation. We most heartily commend him and his art to the public.

W. A. HAMILTON, M.D.

"The Universal Counterfeit and Altered Bank-Note Detector" explains a method for the infallible detection of counterfeit notes. It is highly recommended by experienced bankers, and with its clear descriptions of the essential points in a genuine note, cannot fail to be of great practical value.—*New York Tribune*, Aug. 21st, 1850.

UNIVERSAL COUNTERFEIT DETECTOR,

Applicable to all Banks in the United States.

The Steel-plate Illustrations contain standard specimens of all the different styles of engraving of the notes of all the Banks in the United States—six distinct kinds ; four kinds of Engine-work, which is impossible to be imitated by hand. In counterfeits it is attempted, and this book explains the principle in such a manner as to enable any person to detect *at sight*, infallibly, any counterfeit or altered note.

INTRODUCTION.

Heretofore the best judges of money have had nothing as a guide in judging at sight but experience in handling money, a familiarity with the notes of a few particular banks, and the general appearance of a note. They become familiar with a certain (to them) undefined perfect appearance, generally possessed by genuine notes, and any apparent want of which creates suspicion as to the genuineness of a note; but the first impression, they affirm, is the best, as sometimes upon continued examination the judgment, having no particular guide, wavers, gets confused, and is often at fault. Now this uncertainty may be entirely obviated, and the detection of counterfeits at sight reduced to a perfect science or mathematical certainty; and this great desideratum is held to be perfectly attained in the rules here presented, when combined with a little practice in handling money.

All genuine Bank Notes in the United States are engraved upon one uniform principle, by regular Bank-note Engraving Companies. A company consists of ten to twenty first-class artists, each perfect in his own department; there is required a heavy capital to be invested, and the use of perfect, costly and inimitable machinery. Since the invention of the Geometric Lathe, Ruling Engine, and Medallion Ruling, and the invention of transferring engravings by Perkins, it has been rendered entirely out of the question—in fact, a physical impossibility—for any genuine note to be perfectly imitated. Counterfeiters cannot procure all the machinery; and even supposing they could, it would be against their own interest to invest $50,000 to $100,000 in an illegitimate business, to run the hazardous risk of seizure and confiscation. It would be more to their interest to invest that amount in any honest business. They therefore attempt to imitate the several kinds of inimitable engine-work by hand, and the imitations thus produced vary in character from miserably poor to tolerable, and sometimes exceedingly close imitations—deceiving the best judges who do not understand the

principle, but detected at a glance by any one understanding it, as it is explained and illustrated in the following pages. Sometimes they get hold of one or more worn-out stolen genuine dies and use them in their issues—and so far their work will be genuine; but there is always enough else of the other portions of the work to indicate a counterfeit note.

The following items, quoted from newspapers (June, 1850), will serve to show the necessity of the diffusion of some system of infallible detection at sight:—

☞ "The Western States, it is said, are flooded with $2 bills of the State Bank, Indiana.—*Times.*

☞ The *Boston Traveller* of Wednesday, June 5th, says, "It is not supposed that counterfeit money is manufactured in this city. The greater part of the money of this description which has for years flooded the country, comes from Canada, where, from various causes, its manufacturers have been left comparatively undisturbed, to carry on their nefarious business. * It is not perhaps an exaggeration to say that traders in our city are cheated out of at least $50,000 annually, by means of counterfeit money."

Now in New York city, which is four times larger than Boston, this system has been pretty generally diffused among the merchants for nine months past, and it may be safely predicted that for the year 1850 there will not be one-tenth, or even a twentieth of the above sum lost here by counterfeits. Men who handle any money should not refuse to expend the trifling sum to learn this system. They should reflect that besides it being against their own interests to remain ignorant of it, their neglect to learn it *is just so much encouragement to counterfeiters*, because the less this system is spread the greater the chance for counterfeit money to circulate and defraud the public: therefore, every honest man should put his shoulder to the wheel to facilitate the diffusion of the system, and thereby assist to drive all spurious money out of circulation. The different periodical Bank-note Lists are excellent guides, *as far as they go*, but they do not and cannot go far enough. They assist too often *after* the mischief is done. In hundreds of cases their description of counterfeits is necessarily vague and uncertain, especially where the counterfeit is a *fac-simile* of the genuine: they never make a man a good judge of money *at sight*. But the greatest trouble is that new counterfeits, it is said, are generally "rushed" in upon the community

preconcertedly, from different points at once, and the greatest mischief is often done before they have time to get the description in the List. Now this system will enable the poorest judge to detect *any* counterfeit, *new* or old, AT SIGHT. It is arranged systematically into seven rules, simple and comprehensive at a glance of the eye. For self-instruction a magnifying glass will be of great assistance at first in learning the principle, and afterwards the naked eye will be sufficient to detect, but it is advisable to always have a glass on hand. Also a few specimens of bills, good and bad, to compare and examine at first is necessary to make the theory practical. The following is the list of

RULES:

RULE 1. Geometric Lathe,
" 2. Ruling Engine,
" 3. Medallions,
} Infallible when imitated.

" 4. Vignettes—viz: Stippling, Eyes, Hair, Drapery, Limbs, Scenery, &c.
" 5. Lettering and *Engravers' names.*
" 6. Signatures and filling up.
" 7. Paper, printing, and general appearance.

Alterations from broken Banks—the Magic Three.
Altered Denominations—1st, 2d, 5th and 7th Rules.

It is believed, and experience has proved, that the above combination of rules is arranged in the most judicious and effective order, and the best adapted for practical use in detecting at sight that could be devised. It is in fact nearly the order in which a genuine plate is originally got up. First the "Geometric Lathe" dies, "Medallions," and "Vignettes" are transferred; then the "Lettering" and "Ruling Engine" work, next the "Paper and Printing," "Signatures and filling up," and lastly, after all is finished, the "General appearance" of the whole.

PREFACE TO THE FOURTH EDITION.

That this work merits the encouraging praise and high appreciation it has met with seems to be confirmed by its rapid sale and by the permanent, steady demand yet existing for it, as well now as when it was first issued in 1849. Various miserable imitations of it (infringements of the copyright) have been attempted in the form of circulars, pamphlets, and pretended outlines of it published in newspapers and Bank-note Lists, but of such a superficial and abortive character as to entirely fail of being a truthful synopsis and answering no particularly useful purpose in the detection of counterfeits. This work stands pre-eminent and alone. The only objection heretofore made to it was its high price. It is now reduced to as low a price as it can possibly be afforded, and the present edition improved.

H. C. F.

RULES.

RULE I.

THE GEOMETRIC LATHE.

(*Infallible when imitated.*)

THE "Geometric Lathe" is a very perfect and costly Engraving Engine, which produces very fine and beautiful ornamental patterns of geometric circles of such complication, uniformity, and exquisite perfection, that it cannot possibly be imitated in any manner. It engraves or turns the circular or oval patterns on the dies, on which the figures representing the denomination of the note are placed. A sketch of this engine is quoted from "*Nicholson's Operative Mechanic.*"

"One of the most important securities to the paper currency of nearly the whole commercial world at the present time arises from the invention of transferring engravings, and the work produced by the Geometric Lathe, invented by Mr. ASA SPENCER, while a resident of New London, in the State of Connecticut. The application of this Lathe-work for the security of Bank Notes was first made by Messrs. FAIRMAN, DRAPER & Co., of Philadelphia, in 1816, and from its great beauty and difficulty of imitation, Mr. Spencer was induced to repair to England in 1819, for the purpose of securing the paper currency of that country. As had been expected, this work was put to the severest test which the combined talent of its great metropolis could invent, and having passed this

trial in a very satisfactory manner, it was subsequently adopted very generally by the Banks and Bankers of England and Scotland.

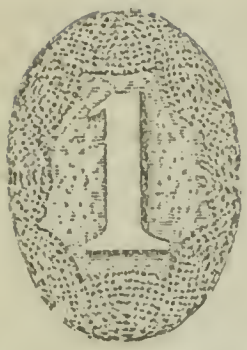
"The Geometric Lathe differs materially from any other *turning* engine hitherto invented. The only one which has any similarity in the work produced, is the "Rose Engine;" but that is only capable of copying patterns previously made upon guides, while the Geometric Lathe forms its own patterns, which are all *originals*, and as various and unlimited as the 'Kaleidescope.' * * * * * *

"The impossibility of successfully imitating this work by any process of hand-work within the reach of the whole combined talent of counterfeiters will not be doubted when the severe test to which it has been submitted is recollected: and even supposing any combination of counterfeiters to be in possession of the different machines and appendages necessary to effect their object, they would soon find that the time which would be required to learn the use of these implements in secret, could be more profitably employed in any honest occupation."

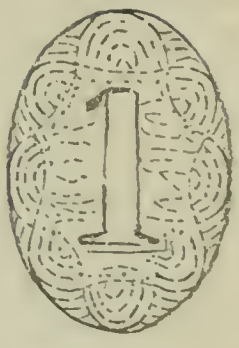
The patterns produced by the Geometric Lathe are concentric, eccentric, or geometric circles, radiating from a common centre, and beautifully interwoven into each other, forming a perfectly regular and uniform 'fancy' pattern, so exactly true and uniform in its radiations, that there never is the slightest possible irregularity or imperfection. It is because the patterns are of such exquisite beauty and perfection, and at the same time extremely fine and complicated, that it is utterly impossible to imitate it by hand or by any process whatever. The Geometric Lathe does not engrave the patterns immediately upon the plate itself, but the patterns are transferred to the plate from roller dies or cylinders, generally in two places, as a majority of bills contain two dies alike, sometimes four,

one in each corner. Being single-transferred the patterns are reversed, and are then *white* circles or lines upon a *black ground.* Of course whenever there are two or four dies that pretend to be alike in a genuine bill, they will all be exactly alike, being all transferred from the same one die. See the two transfers of the die in the steel plate containing the '3.' In imitations of Lathe-work in counterfeit bills there will be a failure in two ways: first, in imitating regularity of the pattern, which is attempted to be done by hand, and also it is cut directly on the plate instead of transferring, so that what in the genuine is black *spaces*, is *engraved* black in the counterfeits, leaving white spaces and black dots, resembling cobble-stones—the white spaces between which made to resemble white lines, while it can easily be seen that it is only irregular black *dots* and scratches instead of white lines or geometric circles. Secondly, a failure in getting two dies exactly alike in the same bill—that is, where they pretend to be alike. If done by hand there cannot be two fine and complicated patterns made *exactly alike;* but in the genuine, where the pattern on one die or cylinder is rolled or transferred in two or more places, they will all of course be exactly alike. This same work is to be seen on the backs of watches, called "Engine Turning."

A



B



Magnified 5 to 10 times.

C

D

Magnified 10 to 20 times.

E

F

Magnified 5 to 10 times.

Diagrams A, B, C, and D, represent the appearance of various IMITATIONS of Geometric Lathe-work when magnified with a powerful glass. There is generally a studied effort to represent *white* intersecting curved lines or Geometric Circles on a *black* ground; in fact trying to imitate TRANSFERRING; but there will always be found, as in the above diagrams, nothing but confused black dots and semi-circular scratches, arranged so as to give it the same "*general appearance*" as the genuine, when held a little distance off. Sometimes there is no effort made to imitate the *white lines*, and there will be seen nothing but confused black dots and irregular black curved lines, mixed up together. Diagram E represents a magnified oblong-die, of alternating waved ruling, or eccentric parallels transferred. See the two dies containing the figure "20" in the steel plate illustration. This work is done by the Ruling Engine, and not by the Geometric Lathe; but as the work is very similar, and imitations of it fail in exactly the same manner, it is classed under the same rule. Diagram F is a representation of a magnified counterfeit or imitation of this work by hand; confused black dots on a *white* ground, instead of true interwoven white lines of the genuine on a *black* ground.

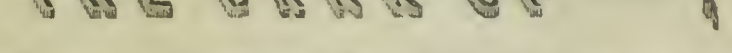
RULE II.

RULING ENGINE.

(*Infallible when Imitated.*)

The Ruling Engine is used for shading the letters, skies, &c. in genuine Bank notes. Underneath, and sometimes on the face of the letters in the title or name of the Bank, as well as other lettering, there appears a soft, smooth, pale grayish color, which to the naked eye appears to be painted with a

brush, but on close examination it proves to be fine parallel lines, and when done by the Ruling Engine the lines are, 1st, all exactly of the same size; 2d, regular distances apart; 3d, perfectly parallel to each other; 4th, uniformity in their direction: and it is *perfection* in these four points which gives it such a smooth and perfect appearance, and the least deviation from which will prove it to be hand-work. In counterfeits this shading is imitated by hand, and it is impossible to do it in this way as perfect as the Ruling Engine, as some lines will be coarser than others, some wider apart than others, not parallel, and some not perfectly straight, and all are apt to be more or less *tapered* off when done by hand with the graver, which is not the case with the genuine, and which gives the whole a scratchy appearance; in fact, the least deviation in any of the points will show at once, and destroy the appearance of the whole. In titles, or the name of a bank, where the letters are alike, as for instance,

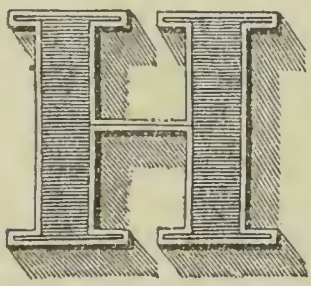


the shading in the genuine always is done all the way across all at once, and there is a perfect *uniformity* from beginning to end; the lines all point exactly in the same direction, whether horizontal or diagonal, on the "T" in "THE" as on "F" in "OF," preserving the same angle and fineness throughout. In counterfeits, where the letters are shaded by hand, one letter at a time, if the lines pretend to be horizontal, some are apt to slant a little downwards or upwards, some letters shaded a little finer than others—that is where they are intended to be alike and uniform. This principle of UNIFORMITY in shading is very important, and should always be noticed. See the words "UNIVERSAL," "DETECTOR," "BANKS," and "UNITED STATES," in the steel plate, which are shaded by the Ruling Engine,

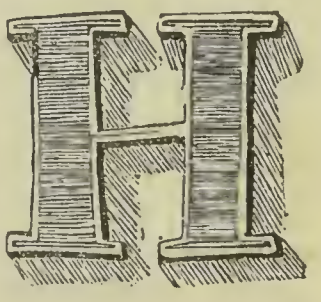
while the word "COUNTERFEIT" is shaded by hand to illustrate counterfeit work.

The sky in vignettes in the genuine is sometimes ruled by the Ruling Engine, and always appears soft, smooth, and perfectly done, and in this case the lines taper off gradually. Imitations of this by hand will appear uneven and scratchy, some lines coarser than others, and some wider apart than others. All genuine skies, however, are not done by the Ruling Engine, but are sometimes fine dots or wavy lines, which fade off into fine dots, and sometimes heavy rolling clouds, circular lines, but it is always done perfectly and beautifully, and looks smooth and natural, being always done in genuine bills by first class artists, while the sky in counterfeits is generally apt to appear coarse and scratchy, and not fading off gradually enough.

G



H



Magnified 5 to 10 times.

Diagram G serves to represent the style of genuine Ruling Engine work as it appears when magnified 5 to 10 times, and H an imitation of Ruling Engine shading as done by hand and magnified the same. A first-class ruling Engine is said to cost $3000.

RULE III.

MEDALLION OR PENTOGRAPH RULING.

(*Infallible when Imitated.*)

The Medallions are raised patterns, or line-engravings, generally representing a head, or some raised fancy patterns in genuine Bank Notes, which look as if raised up from the paper. They are called medallions because they are copied always from and represent the pattern upon a medal. It is done by the Pentograph Ruling Engine, which, guided by the medal, rules the whole pattern in *full length lines*, and the dies are *double* transferred to the plate, which makes the lines *black*, the same in appearance as if the pattern was ruled directly upon the plate itself by the engine. This work is done upon the same principle in mechanics of "*guides*," as shoe-lasts are turned by the "Last turning machine." A model last is used for a guide to the machine, which turns out of a rough-hewn block of wood a last exactly like the model. Thus in genuine medallion ruling there is always a medal or coin used for a "*guide*." The points in determining genuine medallions from imitations engraved by hand, are, the lines in the genuine all run in one general direction; they are always *full length lines* across the whole pattern, the lines are all *exactly the same size* or caliber, they *never cross each other*. Every undulation in the pattern on the guide or medal is copied with the most *unerring exactness*, and articulated *distinctly* and beautifully correct, which is impossible to be done so perfectly by hand. In the counterfeit the lines are apt to *break off* in the midst of the pattern; some lines are apt to be *coarser than others*, which gives it a scratchy appearance. In the genuine, the lines

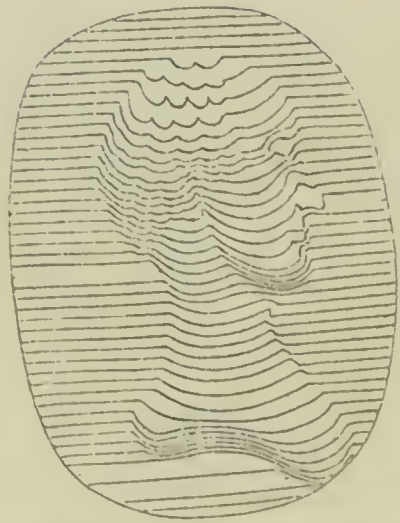
crowd together in the parts of the pattern that appear depressed or sunken, and spread apart more where the pattern appears raised and looks whiter, producing the lights and shades with the most magnificent ease and effect. In the counterfeit done by hand the lines do not crowd and spread apart again, according to the pattern, with such ease and effect, but the patterns appear stiff, flat, or imperfectly raised. There is always one of two ways or alternatives in which the hand-work imitations appear to fail. If they succeed in making the lines full length, as they ought to be, then the pattern will inevitably appear *flat* in expression, imperfectly raised; but if they succeed in making the pattern look *raised*, as it ought to be, then there will inevitably be *broken* or *forked lines* all through the midst of the pattern. It seems impossible to combine in hand-work imitations of this extremely fine and complicated work full length lines, and at the same time a perfectly *finished* and *raised* pattern, which the Pentograph Ruling Engine always does in the highest perfection.

I

J

Magnified 5 *to* 10 *times.*

K



Magnified 10 *to* 15 *times.*

Diagrams I and J represent the appearance of counterfeit Medallions when magnified. K represents the appearance of a genuine Medallion as magnified 10 to 15 times *Every line is full length.* and exactly of the *same size.* In J the lines *break off* and *fork together* all through the midst of the pattern, and

some lines a little *coarser* than others, which gives it a scratchy appearance.

Whenever there are two or more medallions in a genuine bill that pretend to be alike, they are always exactly alike; being double-transferred from the same original die; (see medallion heads marked '3' in the steel plate,) but two medallions cannot be made exactly alike separately by hand. The following extract in relation to this work is quoted from the Mechanic's Magazine, 1835: "The Journal of the Franklin Institute for September contains an elegant engraved portrait of Wm. Congreve, the dramatist, executed by Wm. A. Spencer of Philadelphia, in the manner described, and has inserted the following proofs that the invention can be claimed for America. 'Believing that the credit of the invention of a machine for medal ruling is due to America, we will briefly set forth our proofs, and then speak of the improvements which of late years the method has undergone. The proofs to be given of the existence and state of the machine are to be derived from the results produced by it. In 1817, by the use of a machine which had been invented in Philadelphia, Christian Gobrecht, die-sinker, produced an engraving upon copper, from a medal having upon it the head of Alexander of Russia. From this engraving impressions were taken and distributed. One of these impressions we have seen. In 1819, Asa Spencer, now of the firm of Draper, Underwood & Co. bank-note engravers, took with him to London a machine of the kind above alluded to, which was designed principally for straight and waved-line ruling. This machine was used in London during the year just mentioned, and the mode of ruling waved lines, and of copying medals, was then exhibited and explained by Mr. Spencer to several artists—particularly Mr. Terrell, who took by permission a drawing of the machine, for the purpose of

having one made for his own use. Little however was done in the way of medal ruling until about three years since, (1832,) when a desire to apply the method to the engraving of designs for bank notes caused it to be revived by Mr. Spencer, who bestowed great attention upon it, and overcame the difficulties met with in the onset.—The peculiar construction of this machine has never been made a secret, nor has it ever been patented, although prudential motives have required that it should not be minutely described, and thus be placed in the hands of those by whom its use might be perverted. The operations performed by this machine are the ruling of parallel straight lines at any required distances apart, either continuous or broken; ruling converging straight lines; ruling waved lines, the waves being either similar, varying by more or less imperceptible gradations; and medal ruling or transferring to copper the fac-simile of a medal without injuring its surface, the waved lines presenting a copy of the minutest parts of the medal."

RULE IV.

VIGNETTES—A GENERAL RULE.

Faces, Eyes, Stippling, Hair, Drapery, Limbs, Scenery, &c.

Rule IV. Relates to the Vignettes, to notice whether they appear to come up to the usual standard of perfection in the following points: the faces, eyes, stippling, hair, drapery, limbs, scenery, landscapes, water and agricultural scenes, &c. This work is always done by hand, both in the genuine and counterfeit; but in the genuine it is done by *first-class artists;* men who are at the head of their profession, and who can always get such a complete remuneration for their labor that there cannot possibly be any temptation for them to counterfeit. It

is only second, third, fourth, and sometimes *hundredth*-rate artists that counterfeit:—runaway apprentices and cast-off journeymen, and possibly amateurs. The points to observe are first, the human face, stippling, and the eyes. This is the most difficult of any part of the Vignette to execute well, and fails in counterfeits, more than any other part of the 4th Rule. In the genuine, the eyes have a perfectly natural expression, while in counterfeits they are, generally, merely two clumsy dots. The *stippling* is the beautiful artistic arrangement of the fine dots which produce the shading—the smooth, even, soft *rounding* of the features, the cheeks, nose, lips, chin, and limbs; this fails *invariably* in counterfeits—the features, and generally the limbs also, appearing *flat*, scratchy, inexpressive, and inanimate. The human hair in the genuine will look soft, silky, and natural; displaying a *lustre* in portions where the light appears to strike it. In counterfeits the hair generally appears *stiff*, coarse, *wiry*, lifeless, and unnatural. The drapery in the genuine beautifully represents the folds and texture of different kinds of cloth; sometimes the dark, heavy and glossy appearance of broadcloth is produced; sometimes the light, flowing appearance of silk or muslin—the folds always look easy and *flowing*—no stiffness. In counterfeits the drapery generally appears scratchy and *stiff*, sometimes having the *solid* appearance of cast iron, and sometimes like coarse wire-cloth, inexplicably twisted up in a snarl in trying to imitate the easy and natural folds of the genuine. The limbs, hands, or feet are always well done in the genuine, but generally fail in counterfeits. It is a very difficult matter to execute well, and it requires a first-rate artist to produce an elegant-shaped hand or foot and in an easy position. To engrave human figures correctly it is first necessary for the artist to acquire a *thorough* knowledge of Anatomy. Smoke in the genuine is always well

done—generally in fine curved lines, and sometimes in straight parallels, fading off gradually at the edges. In counterfeits the smoke gradually appears coarse and *scratchy*. Also notice whether the "perspective" is managed rightly: the lights and shades, and the forms of animals, horses, cows, &c. &c. whether truthfully portrayed. Vignettes are transferred to the plates from *double* transferred cylinder dies.

"Chambers's Information for the People" says:—

"Engraving, in all its various branches, is a species of labor which probably requires greater remuneration than any other department of art—for not only must there be a great degree of patience and perseverance beyond what is required in most other employments, especially in undertaking the engraving of a genuine bank-note plate, which must be perfect in all its parts, showing the lights and shades true to life—one part corresponding with another as though nature herself had formed the impression. Such of course is the intention of the artist, who must be a finished workman before he can receive employment in this capacity; the perfection of the execution being of course the only great difficulty to overcome. This will be seen from the fact that in all cases from ten to fifteen artists are employed upon one bank note plate, and as this employment necessarily calls into its service the very best talent that can be secured, it follows as a matter of fact that we are perfectly safe in looking to the perfection of a note for the genuineness of the bill. Each artist has a separate part to execute; and as the whole plate is made of different parts, called "dies" or "cuts," it is therefore evident that no band of counterfeiters can accomplish their designs—it being impossible."

[See the Vignette marked "1" in the steel plate; also the portrait of Washington.]

RULE V.

LETTERING, AND ENGRAVERS' NAMES.

Rule V. relates to the perfection of lettering. In the genuine the lettering is done by a first-class artist, whose particular branch it is to devote exclusively to that part of the work alone, and of course he arrives at a degree of perfection that could not be approached without such a sub-division of labor. In the genuine the letters are all exactly of the same size, where they *pretend* to be, and on the same *angle* and same size stroke, where they pretend to be. There are two great points to observe as regards lettering, viz. *neatness* in form, and *uniformity*—the most important is UNIFORMITY. The want of uniformity in size, slant, distances apart, thickness of stroke, and any deviation from the line of the letters of a title, or the name of a bank for instance, will show counterfeit work. See the lettering in the word COUNTERFEIT in the steel-plate illustration compared with the lettering of the "UNIVERSAL DETECTOR," "UNITED STATES," &c. The engraved writing in the genuine, "Promise to pay on demand," &c. is always beautifully done, the down strokes *uniform in size and slant*, and the hair strokes extremely fine, the curves *easy* and *flowing*, while in counterfeits the down strokes are apt to point in different angles, and the hair strokes coarse, and the curves *stiff* and defective. But perhaps the most important part of the 5th Rule, as it fails *invariably*, without exception, in all counterfeits, is the engravers' names or "imprint," which in the genuine is a *die* cut in the most perfect manner, the letters very neat and perfect and perfectly *uniform* in every respect. In counterfeits it is not a die, but letters cut in by hand, and never so perfect as the genuine, but clumsy, not uniform dis-

tances apart, nor in size and slant, and not all in a straight line, &c.

RULE VI.

SIGNATURES AND FILLING UP.

The 6th Rule relates to the signatures, and filling up the No., date, to whom payable, cashier, and president. To notice whether the whole filling up appears in two or three different hands, as it ought to be. In the genuine the *No.* and *date* is generally written by a bank clerk, who writes a very neat, rapid *business* hand—but of course there may be exceptions to this Rule—but in counterfeits the No. and date is *almost invariably clumsy and unbusiness-like.* Where the officers' signatures are imitated there will be a slow, studied, and stiff appearance, not easy, natural and *original*-looking. Some men acquire an almost intuitive knowledge of *original* hand-writing at sight, and the writer has seen many excellent judges of Bank Notes who have acknowledged that they were guided almost entirely by the signatures, even of strange banks. Auto-chirography may be studied as a science, but it can only be acquired by long experience, and it is not infallible: the best judges of writing might possibly be deceived sometimes. In some counterfeits the signatures are lithographed *fac-similes*, sometimes traced over with a pen. In writing with a pen the ink thoroughly saturates the paper, but leaves a smooth edge to the stroke, and has somewhat of a glossy appearance, while the printed *fac-similes* always have a *stamped* appearance, the stroke of a dead color and rough edge, not saturated or lively, like writing ink. If traced over with a pen there will be places, especially in the hair strokes, where the pen does not follow the curves in the stroke correctly. In cases where

fraudulent impressions are obtained from the genuine plate, or where the plate itself is stolen, the 6th Rule is all that will detect; but when such a case happens there are always measures taken by the bank to meet it—a new plate is ordered, and the old emission called in.

RULE VII.

PAPER AND GENERAL APPEARANCE.

Rule VII. relates to the paper, printing, and the general appearance of a note. Genuine bank-note paper is made of linen or silk, or a mixture of both, of a firm texture, and of a superior quality, (see the paper on which the steel-plate illustration is printed.) This paper is manufactured expressly for the banks and engraving companies alone, and counterfeiters can seldom get hold of paper of this kind, but are generally compelled to use slazy or half cotton paper. A counterfeit note is seldom printed as well as the genuine, but often blurred, and poor ink. As to the "general appearance," this is produced by a combination of all the Rules. If all the Rules are good, and the note well printed, the "general appearance" of course will be perfect; but if there is any one or more of the Rules bad, the harmony of the "general appearance" will be interrupted. But if a genuine note is old, worn, and has been wet, the general appearance may be bad, but the other rules will all be good, and prove the note to be genuine.

ANASTATIC TRANSFERS, OR LITHOGRAPHY.

There was an emission, five or ten years ago, of some counterfeits on the National Bank, Providence, 2s and 5s. They were not regularly-engraved plates; and as the exact process by which they were got up is unknown, they are supposed to be anastatic transfers, or lithographs. They have a very *smoky*, brown, blurred, and *indistinct* appearance, something similar, but inferior to, mezzotinto engraving. It is supposed that the process, whatever it was, did not succeed well enough, as there never have any appeared like them since. The shading of the letters appeared to be a solid brown coloring—no lines perceptible scarcely, and this was the character of the engraving of the whole note.

The new counterfeit tens on the State Bank of Ohio are exceedingly well done, though easily detected by the Rules. One kind—that with an X in the center of the vignette—appears to be a lithograph, a transfer from the genuine bill; but the impression produced appears to have been faint and dim in many places, and re-touched with *a graver;*—thus easily detected on examination, although very dangerous counterfeits.

ALTERATIONS FROM BROKEN BANKS.

THE "MAGIC THREE."

The first seven Rules go to show whether a bill is from a genuine plate or not. We now proceed to discuss *Altered Bills.* In altered bills, where a genuine bill of a broken bank is altered by the counterfeiter to some sound bank, there are three places in which the alteration must be made, viz: First, the *State;* Second, *Title*, or name of the bank; and Third, the *Town.* They are generally extracted, or the letters dissolved by some chemical process, and the name of another bank, state, and town, substituted in their place. The Ruling Engine shading on the genuine will be imitated by hand in the substituted "title" and "town," and this will detect it as well as the clumsiness of the letters generally, and also the white streak or bleaching of the paper around and between the substituted letters. Sometimes the "bank" may be in the same State, and there will be only two places to alter besides the signatures; and sometimes the broken bank bills of the *same name or title* are selected, (for instance the Commercial Bank, Millington, Md.) and there will also be two places to alter besides the signatures, viz: the "State" and "Town." In dissolving the signatures of the broken bank by some acid and substituting imitations of the proper signatures, they generally look *faded*, which is caused by a little acid still remaining in the paper—and also the whole filling up, signatures and all, are in one handwriting. By noticing these three points, the "State," "Title," and "Town," (the Magic Three,) and the signatures, the detection of any alteration from a broken bank will be a very simple and easy matter. For instance, one of the best alterations, and one that has deceived thousands of

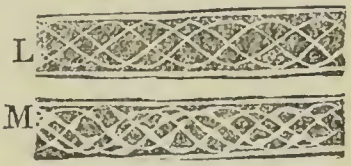
good judges when it was first issued in 1849, were 1s, Madison County Bank. Cazenovia, N. Y. vignette three females. The "New York Safety Fund" and "Cazenovia" were rather clumsily lettered and the MADIS- was *shaded by hand*, while -ON COUNTY BANK was shaded perfectly by the Ruling Engine. This shows of course an alteration from some other name that ended in -ON; most probably CLINTON. There was no bleaching or scratching of the paper around the substituted letters, and the signatures were not faded, this shows that it was not an *altered bill* but an *altered plate*, probably a "wild cat" bank plate, that was sold at auction, in New York, in 1841.

ALTERED DENOMINATIONS.

This is altering from a smaller to a larger denomination—as 1s altered to 5s, &c. &c. This is done in various ways. One way it is done by pasting; but it is more generally done by extracting the ink of the figure and the die containing it by some chemical fluid, and printing in its place a counterfeit die, or sometimes a stolen genuine die containing a larger denomination. The words, "ONE DOLLAR," which generally is shaded by the Ruling Engine, are extracted, and "FIVE DOLLARS" substituted in its place and *shaded by hand*. A difference also in the color of the ink of the substituted denominations from the rest of the note will generally be seen. Sometimes the letters of the substituted denomination are *common printer's type*, the "old English letter," ☞Twenty Dollars.

OLD-STYLE PLATES.

Counterfeits upon the old-fashioned plates, "Perkin's stereotype plate" and others, all that contain any *transferred* dies, the pattern *white* upon a black ground, can be detected by the imitation of transferring. Diagrams E, F, on page 16, also diagrams, L, M, will illustrate this principle. In the genuine it is machine waved-ruling transferred from dies, while in the counterfeit this is imitated by engraving the *black spaces* immediately upon the plate itself, and attempting to make it fit so as to have the appearance of being transferred. L represents the genuine, (though imperfect,) M represents the counterfeit. There are four out of the seven Rules that will apply to the old fashioned "Perkin's stereotype" and most other old-style plates, viz: the 1st Rule, or Transferring; the 5th Rule, the Lettering, especially the mass of small lettering, "One Dollar," "One Dollar," in the body of the note; 6th Rule, the Signatures and filling up; 7th Rule, Paper and general appearance.



THE PIECING OPERATION.

This process of increasing the number of bills from a given quantity by piecing—as making ten bills out of nine—appears to be done—as seen in a specimen lately—by cutting off perpendicularly a piece, one ninth of a bill, and pasting in its

place a piece of a *counterfeit* on the same bank and denomination to match. The same process will be then carried on with the nine bills, only that in each bill the piece would be cut out in a different place. When the nine bills are thus all pieced there would be *just enough surplus pieces left* of the genuine to paste together with one piece of the counterfeit to make a *complete bill like the rest*, and this would be the profit on the operation. The counterfeit part of the bills appeared to be intentionally defaced, so as to be nearly illegible, in order to escape detection. The banks will only redeem such bills at their estimated proportionate value.

SUMMING UP.

PRACTICAL APPLICATION OF THE RULES.

No matter how much a bill may be worn and defaced, if the name of the bank and the denomination can be seen, the application of these rules will enable a person to decide at sight whether a bill is genuine or not. The 1st Rule, the Geometric Lathe-work being infallible, any imitation can be detected at a glance, when of course the bill must be a counterfeit without looking any further. But a great many counterfeits contain *stolen genuine dies*, when of course the 1st Rule will fail to detect; but there is always enough else to detect a bad bill. The 2d Rule, the Ruling Engine work—any imitation of this can be detected at a glance. This rule detects oftener than almost any other rule, and therefore it is one of the most useful of all the rules. In some old-fashioned genuine plates, especially in some of the old New England plates, there may occur an exception to this rule, the shading of the letters being done by hand. Now and then, but very rarely, a counter

feit is seen containing genuine Ruling Engine work; but in such a case there are plenty of the other rules to fail. Counterfeiters may get some genuine work, but they cannot get a *perfect combination of all the work genuine.* There is always *something lacking.* It is against their interest to invest so much capital as would enable them to get everything perfect. Besides, they can never get the services of a sufficient number of first-class artists, and *all* the necessary machinery. 3d Rule, the Medallions—see if the heads or other ornamental patterns of this work look raised, distinct, clear and smooth, and the lines all *full length*, and the most skillful imitations by hand can be detected at a glance. 4th Rule, the Vignettes—whether they come up to the usual standard of perfection, especially the human eye and face. Sometimes the vignette in a counterfeit is a stolen genuine die, generally much worn. A lot of old worn out dies were sold at auction in New York in 1841 to the highest bidder, and some got into counterfeiters' hands. 5th Rule, the Lettering and Engravers' Names. It is an exceedingly rare thing indeed to find anything near first-class lettering in a counterfeit; but the Engravers' names *always fail*—the writer has never seen a single exception. 6th Rule, the Signatures and Filling Up. Counterfeits are so often palpably filled up all in one handwriting as to make this an important rule; also look out for lithographed 'fac-similes.' 7th Rule, Paper and General Appearance. Experience has proved that it is always best in judging a doubtful bill to apply the rules in their proper order, one after the other, commencing with the 1st, otherwise a person might forget one or two rules, and neglect to apply the very rule that would most palpably condemn the bill. The writer has never seen a counterfeit where less than *two* of the rules would condemn it at sight, and the rest genuine work. But the majority of counterfeits

are condemned by three, four, five, six, and very often the whole seven rules.

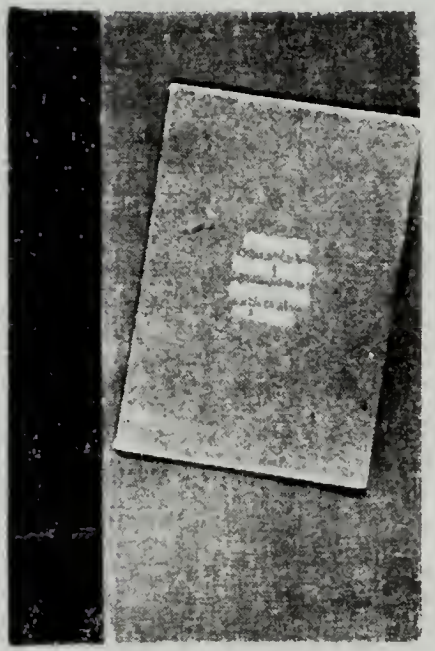
THE STEEL-PLATE ILLUSTRATION.

The steel plate, next to the title-page, contains a standard specimen of all the different styles of genuine engraving on all bank notes of all banks in the United States. But *those particular patterns* or dies do not belong to any regular Bank-note Engraving Co. in the U.S. They, with others, were sold at auction some years since, and duplicate dies have been made from them and scattered over the country, New York, Boston and Philadelphia, and some of them have got into counterfeiters' hands, who use them in their spurious issues. Therefore no pattern like any one of these will ever be seen in a genuine note; but one or more of the duplicates of them will often be seen in a counterfeit. The plate therefore serves two purposes—1st, illustrating genuine and perfect work; 2d, to guard against genuine auction dies used in counterfeits.

Another auction vignette die, often seen in counterfeits, but never in a genuine bill, is a woman sitting by a sheaf of wheat, canal lock on the right and locomotive and bridge on the left.

Champa Nov 1994
for comparison

232 H(ENRY) C. FOOTE: ***The Universal Counterfeit and Altered Bank Note Detector at Sight; A System of Infallible Detection at Sight, Applicable to all Banks in the United States, or hereafter issued. Complete in seven rules: with Diagrams and Illustrations on Steel, for Self-Instruction;*** New York, 1853, *Fourth Edition, Fifth Thousand*, 36 pages, examples of bank note engraving throughout the text, folding engraved bank note facsimile tipped to inside front board, original green fabric card covers. Fine, housed in a Alan Grace quarter green leather solander box with reducing spacer. (500.00)



Davis 389. Rare. Not in Dillistin, not in the A.N.S Library. One of the earliest counterfeit detectors, and by no means as available as the "fifth thousand" would imply. The Fuld Library contained a first edition dated 1849; *The Essay Proof Journal* in 1985 illustrated an 1850 *Second Edition, Third Thousand*, and we have seen an 1851 *Third Edition, Fourth Thousand* in a private library. Thus all editions exist, although we imagine the inference that 5,000 copies had been published was strictly marketing hype. (See Color Plate IX)